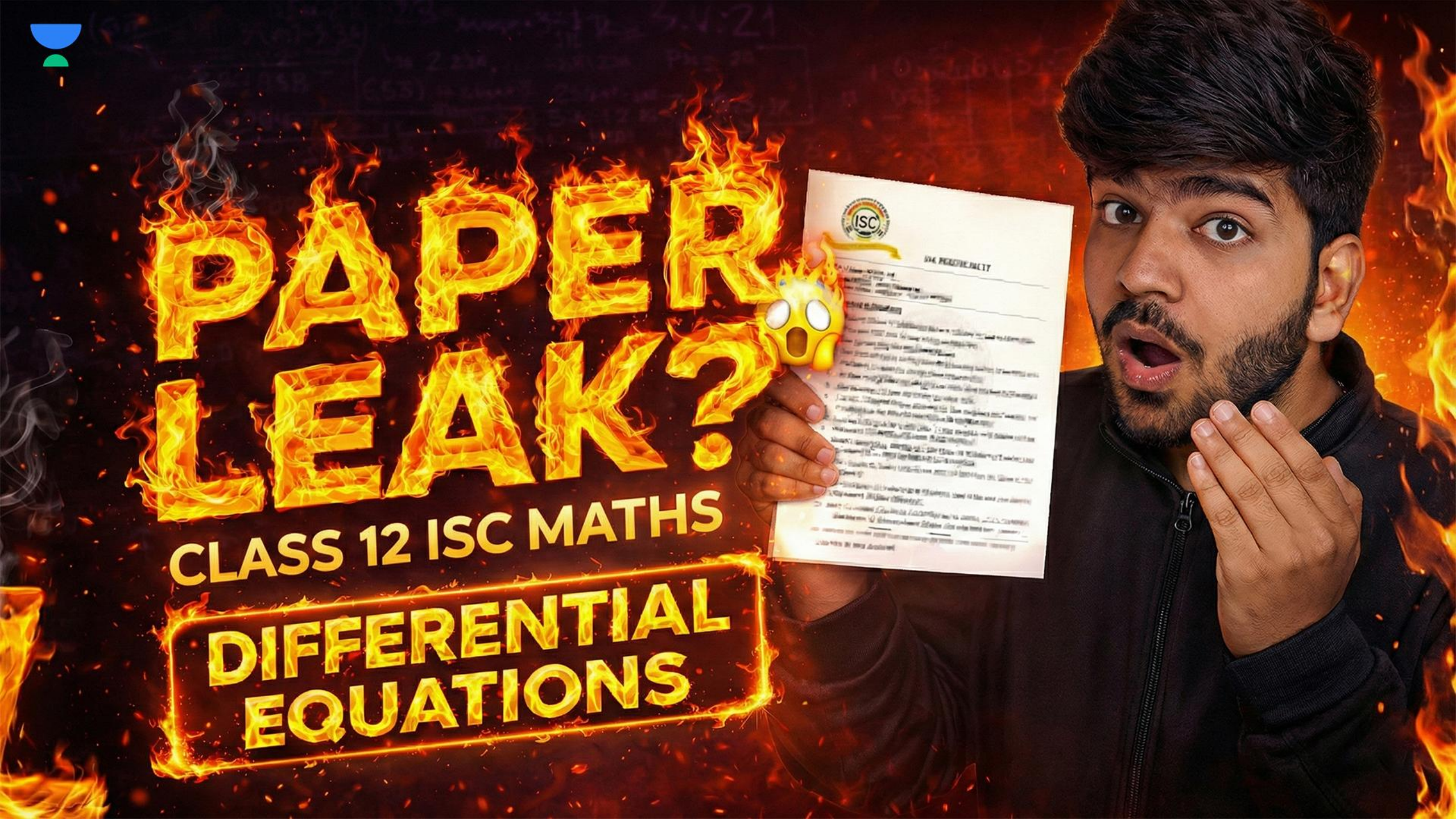
PAPER LEAK? 😱
CLASS 12 ISC MATHS
DIFFERENTIAL EQUATIONS
ISC

Form the differentital equation of the family of concentric circles $x^2 + y^2 = r^2$,where $r(> 0)$ is arbitrary constant.

2018

Solve the differential equation : $\frac{dy}{dx} = \sin x - x$

2022

Solve the differential equation : $\frac{dy}{dx} + 2x = e^{3x}$

2022

Solve the differential equation : $\frac{dy}{dx} = cosecy$

2023

Solve the differential equation : $\left(x^2 - yx^2\right)dy + \left(y^2 + xy^2\right)dx = 0$

2017

Solve the differential equation : $\sin^{-1}\left(\frac{dy}{dx}\right) = x + y$

2015

Solve the differential equation : $\frac{dy}{dx} = \frac{x+y+2}{2(x+y)-1}$

2019

Solve the differential equation :

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$$(xdy - ydx)ysin\left(\frac{y}{x}\right) = (ydx + xdy)xcos\left(\frac{y}{x}\right)$$

Find the particular solution satisfying the condition that $y = \pi$ when x = 1.

Solve the differential equation :

2016

$$x^2dy + (xy + y^2)dx = 0, \text{when } x = 1 \text{ and } y = 1$$

Solve the differential equation :

2023

$$(x^2 - y^2)dx + 2xydy = 0$$

Solve the differential equation :

2024

$$2ye^{\frac{x}{y}}dx + \left(y - 2xe^{\frac{x}{y}}\right)dy, given\ x = 0\ and\ y = 1$$

Find the particular solution of the differential equation :

$$\frac{dy}{dx} = \frac{y^2}{xy - y^2}, given\ that\ y = 1, when\ x = 1$$

2022

If $y = \left(x + \sqrt{a^2 + x^2}\right)^m$, prove that $\left(a^2 + x^2\right)\frac{d^2y}{dx^2} + x\frac{dy}{dx} - m^2y = 0$

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THANK YOU